

CLAIMS

1. An over molded motor stator structure comprising:
a stator assembly including a bobbin assembly around which a coil is wound assembled to a stator core comprising a plurality of stator laminations having an internal diameter and an external diameter;
5 said stator assembly being encapsulated by a unitizing material which forms an over molded motor stator structure including an integral unitized stator assembly and a molded main body;
wherein said stator assembly is encapsulated such that said internal diameter and said external diameter of said stator core is exposed.
10
2. The over molded motor stator structure of claim 1, wherein said molded main body comprises at least one integral motor mounting portion.
3. The over molded motor stator structure of claim 1, wherein said molded main body comprises at least one integral sensor cavity.
4. The over molded motor stator structure of claim 1, wherein said molded main body includes a bearing pocket support.
5. The over molded motor stator structure of claim 1, wherein said over molded motor stator structure is suitable for use as molded without requiring additional machining processes.

6. An over molded motor comprising:
a rotor assembly comprising a central rotor portion on a rotor shaft, said rotor assembly being adapted for support by bearings located near
5 end portions of said rotor shaft;
said rotor assembly being rotatably disposed into an over molded motor stator structure in accordance with Claim 1.
7. The over molded motor of claim 6, wherein said molded main body includes at least one integral motor mounting portion.
8. The over molded motor of claim 6, wherein said molded main body comprises at least one integral sensor cavity.
9. The over molded motor of claim 6, wherein said molded main body includes a bearing pocket support.
10. The over molded motor of claim 6, wherein said over molded motor stator structure is suitable for use as molded without requiring additional machining processes.